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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,332	12/21/2000	Kinya Kato	35.C14996	6155

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

WONG, EDNA

ART UNIT PAPER NUMBER

1753

DATE MAILED: 04/09/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/741,332

Applicant(s)

KATO ET AL.

Examiner

Edna Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39, 56-60 and 63-66 is/are pending in the application.
- 4a) Of the above claim(s) 1, 27 and 66 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-26, 28-39, 56-60 and 63-65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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This is in response to the Amendment dated March 31, 2003. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Arguments

Election/Restrictions

Applicant's election without traverse of Group I, claims **2-26, 28-39, 56-60 and 63-65** in Paper No. 12 is acknowledged.

The requirement is still deemed proper and is therefore made FINAL.

This application contains claims **1, 27 and 66** drawn to an invention nonelected without traverse in Paper No. 12. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 112

Claim **18** has been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection of claim 18 under 35 U.S.C. 112, second paragraph, has been withdrawn in view of Applicants' amendment.

Double Patenting

I. Claims **2-26, 28-39, 56-60 and 63-65** have been provisionally rejected under the judicially created doctrine of double patenting over claims **46-94** of copending Application No. **09/794,836** (Kato et al.). This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The rejection of claims 2-26, 28-39, 56-60 and 63-65 under the judicially created doctrine of double patenting over claims 46-94 of copending Application No. 09/794,836 is as applied in the Office Action dated December 31, 2002 and incorporated herein. The rejection has been maintained for the following reasons:

Applicants' state that the claims in the '836 application do not disclose heating the soil to extract pollutants therefrom. The only specific recitation of a method for extracting pollutants from soil in the claims of the '836 application is in claim 49, which is directed to using a pit provided in the polluted soil and a vacuum pump to extract the gas containing the pollutant through the pit. Vacuum extraction without using heat is clearly different from the presently claimed invention. In response, claim 49 is only one embodiment of the invention of the '836 application because the main embodiment is recited in claim 46 and that claim is not solely limited to vacuum extracting a pollutant from the polluted soil.

Claim 46 of the '836 application recites, "A polluted soil remediation method comprising the steps of:

(a) mixing a gas containing a pollutant **extracted** from a polluted soil and a

chlorine-containing gas to form a mixed gas: and

- (b) irradiating the mixed gas with light to degrade the pollutant contained in the mixed gas.

Claim 2 of the present invention recites, "A method of purifying polluted soil which contains a pollutant, comprising the steps of:

- (a) **heating** the polluted soil to make the soil emit a gas containing the pollutant;
- (b) passing a gas through functional water to generate a gas containing chlorine;
- (c) mixing the pollutant-containing gas and the chlorine-containing gas to form a gas mixture; and
- (d) irradiating the gaseous mixture with light to decompose the pollutant.

Claim 65 of the present invention recites, ""A method for purifying polluted soil which contains a pollutant, comprising the steps of:

- (b) mixing a gas containing a pollutant emitted by **heating** polluted soil and a chlorine-containing gas to form a gaseous mixture: and
- (c) irradiating the gaseous mixture with light to decompose the pollutant.

The same gas mixture is being irradiated with light in both inventions. The way the gas containing the pollutant is emitted from the soil is encompassed by the claims:

Claim 46 of the '836 application is opened to heating the soil to extract the

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pollutant therefrom; and

Claims 2 and 65 of the present invention is open to emitting the gas containing the pollutant into a pit provided in said soil and using a vacuum pump for extracting the gas containing the pollutant through the pit.

Applicants' narrower claim limitations read on their broad claim limitations, either alone or in combination with their dependent claims, and vice versa. Thus, the conflicting claims are not patentably distinct.

Furthermore, Applicants have already received a patent directed to a pollutant **extracted** (broad) from a polluted soil. It appears that future claimed inventions directed towards the same method but claiming a specific extraction technique, i.e., **heat extraction, vacuum extraction**, etc. (narrow), would be an unjustified timewise extension of the invention granted by the application or patent (the '836 application is now US Patent No. 6,538,170 B2).

II. Claims **2-26, 28-39, 56-60 and 63-65** have been provisionally rejected under the judicially created doctrine of double patenting over claims **6-12, 14-17, 25-30, 33-35 and 37-38** of copending Application No. **09/335,711** (Kato et al.). This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The rejection of claims 2-26, 28-39, 56-60 and 63-65 under the judicially created doctrine of double patenting over claims 6-12, 14-17, 25-30, 33-35 and 37-38 of

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copending Application No. 09/335,711 has been withdrawn in view of Applicants' remarks.

Claim Rejections - 35 USC § 103

Method

I. Claim **65** has been rejected under 35 U.S.C. 103(a) as being unpatentable over **Calcote et al.** (US Patent No. 5,813,799) in combination with **Robson** (US Patent No. 5,308,507).

The rejection of claim 65 under 35 U.S.C. 103(a) as being unpatentable over Calcote et al. in combination with Robson has been withdrawn in view of Applicants' remarks.

Apparatus

II. Claims **28-35 and 37-39** have been rejected under 35 U.S.C. 103(a) as being unpatentable over **Calcote et al.** (US Patent No. 5,813,799) in combination with **Robson** (US Patent No. 5,308,507).

The rejection of claims 28-35 and 37-39 under 35 U.S.C. 103(a) as being unpatentable over Calcote et al. in combination with Robson is as applied in the Office Action dated December 31, 2002 and incorporated herein. The rejection has been maintained for the following reasons:

Applicants state that there is not one iota of disclosure in Robson suggesting that

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decomposition should be conducted in a gas phase or that such decomposition in any way be advantageous. In response, a gas phase or liquid phase does not structurally distinguish the apparatus from the prior art. The manner in which an apparatus operates is not germane to the issue of patentability of the apparatus itself. *Ex parte Wildahl* 10 USPQ 2d 1546, 1548 (BPAI 1989); *Ex parte McCullough* 7 USPQ 2d 1889, 1891 (BPAI 1988); *In re Finsterwalder* 168 USPQ 530 (CCPA 1971); *In re Casey* 152 USPQ 235, 238 (CCPA 1967).

The Examiner maintains her position as set forth in the prior Office Action on pages 11-14. Applicants' remarks have been fully considered but they are not deemed to be persuasive.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

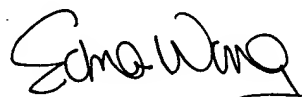
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edna Wong whose telephone number is (703) 308-3818. The examiner can normally be reached on Mon-Fri 7:30 am to 5:00 pm, alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (703) 308-3322. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 873-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1495.



Edna Wong
Primary Examiner
Art Unit 1753

EW
April 7, 2003